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ABSTRACT

This report describes the cognitive procedures which a group of Australian stipendiary utilize in court to make decisions. The study was based on an assumption that magistrates represent a group of professionals whose work involves making decisions of human significance, and on an assumption that the magistrates' own perceptions of their ways of making decisions would provide a useful base for studying processes of judicial information processing. Fifteen volunteer magistrates were interviewed by the same female educational psychologist using the clinical interview technique. The magistrates responded to specific questions about how they select and use information. Results include the following. Two types of strategies were specified as ways of establishing initial approaches to a case: (1) treating each case individually and adopting a fresh start each time; (2) determining what could and could not be admitted as evidence. The magistrates acknowledged the following constraints of judicial decision making: the laws of evidence, the availability of limited information, the acknowledgement of personal perspectives, and time constraints. The magistrates identified four specific operations that were used for receiving evidence, and for processing it as the basis for judgement making. They are building up the evidence, forming early hypotheses and opinions, selecting and sifting evidence, and concurrent evaluation of information. Several examples of final summation and evaluation of material are provided. (Author/RM)

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Magisterial Decision-Making : How Fifteen Stipendiary Magistrates Make Court-Room Decisions

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Introduction and Background

The decisions made by stipendiary magistrates have great consequence for people's lives. While the number and severity of cases decided by a magistrate at a day's court sitting may fluctuate, each individual case has significant effect for at least one person, and social significance for the community. A person brought before the magistrate's court is well aware that the man or woman behind the bench is there for the purpose of processing information in order to make a decision about his or her life which bears the weight of law.

It is not surprising then, that social scientists who are interested in human decision-making should seek to understand how magistrates function as processors of information, and as professional decision-makers. This report describes the cognitive procedures which a group of Australian stipendiary magistrates identified in their decision-making in court. The study was based on an assumption that magistrates represent a group of professionals whose work involves making decisions of human significance, and on an assumption that the magistrates' own perceptions of their ways of making decisions would provide a useful base for studying processes of judicial information-processing.

While there have been numbers of studies of judicial decisions of judges and magistrates, most have concentrated on examining the "what" and the "why" of judging, that is, what types of decisions are made in judgments and sentences, and the kinds of factors which are associated with, and explain judging patterns. We were interested in describing the "how" of magisterial decision-making, that is, how a magistrate actually processes the information available to him or her when making a judgment.

Most studies of judicial decision-making have been of two types. In one paradigm various descriptive and psychometric models have been used to show the association of judging and sentencing decisions with personal and background characteristics of judges, or with social and political and group affiliation influences (Tanehaus, 1961; Schubert, 1969, Grunbaum, 1969; Hood, 1972, Gibson, 1978; Bond & Lemon, 1979). While designs, instrumentation and statistical analyses have varied, the basic intention was to determine the kinds of associational factors which would predict ranges of verdicts and penalties.

In another paradigm dependent on decision theory and games theory models, probability equations have been used to predict decision outcomes in relation to cost/behefit analyses of numbers of contributing factors (Wilkins & Chandler, 1965; Walker & Main, 1973; Siegal, Sullivan & Green, 1974, Nagel & Neef, 1979). Both types of study have met with varying degrees of success in explaining patterns in judging and sentencing decisions and in predicting the types of decisions judges, magistrates and probationers might make. A few researchers have studied actual courtroom procedures but mainly from the point of view of human interaction and dramaturgical analyses of that interaction (Emerson, 1967; Blumberg, 1967; Carlen, 1976). Their emphasis has not been on the use of information and the processes antecedent to judges' decisions.

Shaw, Fisher and Kelly (1973) observed the cognitive processes involved in the third party settling of disputes and noted the problems of assessing and reacting to new information in an ongoing process with the persistent pressure of having to reach a decision. However, they did not fully explore these processes and instead discussed changes in attitude.

In an early review Grossman (1966) pointed out the inaccuracy of a popular and pervasive view of the judge's task as the exercise of mechanical and syllogistic reasoning. The correlational and relational studies have shown that behaviour patterns are influenced by complex and substantially unexplained combinations of factors. He argued for the need for research which seeks to understand how personal background, experience and values are articulated in, and influence judicial decisions.

The delicate nature of court-room phenomena and the complexity of the judge's personal criteria have precluded depth analyses of the kind of cognitive processes or matrices by which factual information, personal perceptions and knowledge of other cases are combined in a judge or magistrate's thinking.

Hogarth (1967) observed that sentencing is the end-result of a process which involves the interplay of information available to the court, with the mechanisms used by the court in the selection and use of this information in order to reach decisions. He developed a model for describing the process by obtaining check-sheet responses to an extensive list of variables on over 100 cases from 71 magistrates from Ontario. Explanation of objective responses involved exhaustive statistical analyses which described the information space, legal and social constraints, definition of the situation, and judicial self-concepts and attitudes related to sentencing patterns (Hogarth, 1971).

It seemed reasonable to assume that another useful way of describing the factors related to both judging and sentencing decisions would involve asking magistrates how they select and use information. Focus is moved from terminal decisions to the procedures behind them, and from the researchers' concepts to the terms in which functioning experts describe their own mental operations. Cognitive psychologists have been developing

models for describing the mental operations by which groups of people act on information to solve problems and make decisions, and the problem-solving paradigm seemed to provide an alternative approach to the study of the procedures of judicial decision.

Problem-solving studies have produced descriptions of the ways in which several kinds of experts have applied mental operations to information in the service of different kinds of goals. For example, studies have shown how master chess players can remember and work with many and complex patterns of plays (DeGroot, 1965; Chase & Simon, 1973), how chemistry professors form and test hypotheses about combinations of unknown liquids (Pitt, 1976) and how philosophy graduates use factual data, identification of issues and moral criteria to solve hypothetical moral dilemmas (Lawrence, 1979a).

In the sphere of professional expertise Braunstein and Coleman (1967) described the way in which accident assessors use evidence to estimate the damages of aircraft crashes, and several researchers have shown how medical specialists process case histories and symptom information to make clinical diagnoses (Wortman, 1972; Elstein, Shulman & Sprafka, 1978; Mandernach, 1978). Currently a problem-solving analysis of a particular medical skill is being used to train general practitioners in a family planning clinic following analyses of expert's skilled practices (Bacon & Lawrence, 1981).

A problem-solving approach would yield data of the ways in which magistrates actually use personal experience and training, knowledge and frames of reference, and specific cognitive strategies in order to take the evidence of a case, make of it a coherent picture and reach a reasonable and just decision.

There are several techniques which could be used to obtain information about court-room judging, but not all would provide evidence of the covert thought processes that were our focus. Court-room observation and transcript analysis would reveal the sequencing of verbal and behavioural events, but no evidence of what the judge was thinking as he processed the evidence. Simulation exercises would yield a magistrate's concurrent reports of his thinking, but lose the situational effects, impressions and nuances of the court-room. Personal and in-depth accounts of covert operations, preceptions and impressions may be elicited by the use of a clinical interview technique in which the interviewer seeks to obtain data on a particular matter. He or she has a series of questions which can be asked in various ways, and which may be tailored to follow an informant's relevant line of thought. This technique was considered to be most suitable for obtaining rich individual accounts from the magistrates, and for probing their statements about processes which they may not previously have made explicit.

Many psychologists have shied away from personal reports, with behaviouristic mistrust of treating individuals as reliable observers of their own activities. However in recent decades it has been argued that there is some information about an individual which best can be obtained from the observer with the most privileged and direct access, that is, from the very person whose activities are of concern (Dulany, 1968; Harré & Secord, 1973; Lawrence, 1979b). In taking that argument seriously we have assumed that initial accounts of magistrates' processing of court-room information best would come from the magistrates themselves.

Method

Subjects

The fifteen magistrates were volunteers who responded to an open letter sent via the office of the Chief Stipendiary Magistrate to the 70 stipendiary magistrates currently sitting in the Court of Petty Sessions in one Australian capital city, and the 14 in another capital city. In the smaller city half the magistrates responded favourably. In the larger city the dates offered for interview coincided with a magisterial conference. Magistrates were asked to set aside one hour from their daily work for the interview. Two subjects were interviewed at their homes, the others in magistrate's rooms at the courts where they were presiding. All subjects were males in their middle years.

Procedure

Each magistrate was interviewed by the same female educational psychologist using the clinical interview technique. The structure of the interview was flexible. Variations on a set of standard questions were dictated by a magistrate's line of reasoning. The magistrates had been asked to process two hypothetical moral dilemmas (Lawrence, study in preparation), and questions about decision-making often followed naturally from that material. When a magistrate referred to make decisions he was asked, "How do you do that, what do you do in your head?" and related questions. All interviews were audio-taped and used for analysis, although the tape of Magistrate 3's responses was damaged and could not be quoted for examples. The interviewer attended several courts of the magistrates for background.

Analysis

Data were the complete transcript of the interviews and were comprised of responses to specific questions about decision-making procedures used in court, and any other material about decision-making which was volunteered by, or elicited from the magistrates. An educational psychologist trained in problem-solving analysis and a graduate student of anthropology analysed each transcript, extracting accounts and comments about decision-making and categorizing them independently. The anthropologist had no knowledge of information-processing concepts. After initial categorizations the two researchers conferred to define a common set of descriptive categories and the transcripts were re-analyzed. A descriptive model was generated, and the magistrate's accounts were described by the psychologist using problem-solving concepts. The description was compared with the interview transcripts by the anthropologist.

Magistrates' Accounts of Decision-Making Procedures

The magistrates' accounts of the ways they make court-room decisions are presented as samples and examples with commentary. We have not attempted to describe all the responses given by each interviewee, nor have we tried to quantify instances of the use of particular classes of response across subjects. Our report describes the thought processes as they were identified by the magistrates, and proposes an integrated way of describing how a magistrate uses information to make court-room decisions.

Each of our subjects provided some data about his way of making judicial decisions, although the task of introspecting on one's own thinking was foreign to most of the magistrates.

Individualized Style

Most of the magistrate's accounts of their decision-making activities were of individualized styles or informal systems which they had developed with experience. There was little evidence of formalized or generally-agreed upon ways of making judicial decisions in the interview transcripts. Only one subject referred to formalized training in decision-making and that was a brief statement that he approached the determining of sentences "in the way the experts say we should approach it" (M13). However, later in the interview this man also said that he had gained a "sixth sense" for sentencing from his considerable personal and professional experience.

Individual judging styles were attributed to the prior personal and professional experience of the magistrate. The magistrates frequently mentioned the importance of acquiring a vast experience of court-room procedures either through services within the court system, or through legal practice as solicitors. One magistrate expressed his reliance on experience.

> I don't think you can define any of my decision-making cases. It just comes, I suppose, from training and practice over the years. (M10).

It was not uncommon to find this kind of unspecific dependence on personal experience in an interview transcript. When a man referred to the quality and value of experiences in training years, he usually showed a strong preference for the type of experience with which he had been provided by his own training. The route to the magisterial office had either followed a number of years service as court clerk or occupation in legal practice, and magistrates expressed strong preferences for one or the other system. Whatever the route experienced and preferred, a magistrate had come to view himself as a particular individual whose total past experience contributed to his effectiveness in his current role. For example, Magistrate 13 differentiated between the contribution of formal knowledge and personal experience.

> Well, I think being a magistrate is one of the professions where experience is invaluable, and I really can't think of any other one where experience is so important because you start out in law learning all about law, and how to, um... you have a knowledge of the law and how to interpret the statutes and all of this sort of business. But when it comes down to the final sentencing of an individual, then this is when you call upon your experience. (M13)

While personal experiences and histories figured largely in the magistrates' descriptions of their perceptions of their role, there was a consistent absence of views of the way in which this large body of experience and information could be annexed and applied to specific cases. Past experiences and knowledge did seem to provide these men with material which could be used as criteria for judging immediate cases. However this material also seemed to be held in memory as global abstractions or implicit ideas more than as explicit, formalized rules for judging.

Psychologists recently have given serious attention to the implicit theories and ideas held by individuals and groups, and the ways in which these ideas influence thought and behaviour, for example, about the ways children should be reared (Goodnow, 1981). Normally a person's implicit or unformulated ideas take the form of undifferentiated perspectives which are not articulated or examined. Yet they can exert considerable influence over how people operate in the world. Wegner & Vallacher (1977) argue that a person's social behaviour is greatly influenced by what he or she may presume other people are thinking in social encounters. Covert and unformulated ideas impose perspectives on events and structure attitudes to commonly encountered circumstances (Schank & Abelson, 1977).

The processes of court-room judging are covert and personal, and the magistrate's assumptions and procedural rules are individualized and unscrutinized. He is not expected to make them explicit in court. He is expected to be able to give a rationale for any individual particular judgment. In fact his rationale may be so public and important as to be re-assessed in a court of appeal. While the verdict and sentence must be articulated, and be justifiable, the process by which they are generated remains covert and personal. It is reasonable to assume that a magistrate will have at his disposal a set of implicit perspectives by which he can structure his response to a case, and from which his rationale is constructed. We found evidence of such implicit, generalized perspectives in the magistrates' accounts of their court-room decision-making. These and specific strategies for processing information were identified by the magistrates.

General Perspectives

Perspectives and ideas drawn from a rich bank of experience and knowledge provide a magistrate with general systems for paying attention to patterns and features of cases. The magistrate's task is to read, listen to, and perceive pieces of information from a variety of sources, and to fit pieces together. He must construct a coherent picture in order to produce a reasonable and just judgment. The knowledge he has acquired and a range of past experiences have been blended together in his mind as abstractions and ideas (Bartlett, 1932). These abstracted and accumulated ideas provide ways of framing incoming information so that it makes sense. They exist in the magistrate's mind as ways of recognizing commonly encountered factors, and as implicit rules of thumb for organizing and sorting conflicting evidence.

A magistrate's own reasonable doubt was frequently mentioned as a perspective for making sense of information. His personal skepticism provides a magistrate with a criterion which has been built up in memory, and is available for checking new material. Checking either involves posing a question to oneself, such as "Do I have any doubt about the evidence of this person's guilt?" or it involves determining whether new evidence cancels out any existing doubts. If the magistrate cannot quiet his doubt, then he must give the defendant the benefit of his unconvinced state, and dismiss the case. One magistrate claimed that it was the concept of reasonable doubt that made his task easier than would be imagined,

> ... people would see our job I suppose as hard in deciding a case on evidence... In actual fact that is no problem at all. You just make up your mind on the evidence as presented whether he is guilty beyond reasonable doubt. If there is a niggling doubt in your mind, you've got to give him the benefit of the doubt... (M8)

Another magistrate explained how the concept of reasonable doubt reduced uncertainty in deciding about criminal cases.

> Well, I'll tell you why (they are easy). The range of the penalty is fairly limited, proof beyond reasonable doubt, starting from the bottom end of the scale, proof beyond a reasonable doubt... in criminal matters knocks out, you know, almost to a degree of certainty the risk of making an error. I don't say errors don't occur... that gives you a tremendous leeway, and a lot of confidence after you have made your decision. (M11)

This man felt that the ability to adopt a skeptical perspective made judging criminal cases easier than deciding about civil cases. Civil cases involve choosing between possible decisions rather than eliminating doubt about one decision.

> That's why civil case are more difficult, because it is a balance of probabilities... And you know, balance in probabilities is definitely more difficult than being satisfied beyond a reasonable doubt... (M11)

In similar vein Magistrate 2 explained how he could make confident judgments about many criminal cases by applying his reasonable doubt to the evidence before him.

> Well, in nine cases out of ten we do, and it's where the evidence is so clear that when it's related or equated with the charge there is no doubt that the person is guilty and there is no point in looking at the shades of it. You just say the charge has been proven beyond reasonable doubt and you are convicted... (M2)

When more difficult cases needed to be reserved for further processing reasonable doubt still provided the ultimate checking device.

> ... some of them take two or three weeks to mull over before you come to a decision beyond reasonable doubt, or a decision that you can't make a decision. In that case the defendant gets the benefit of the doubt. (M2)

These examples show the way evidence is measured against a general perspective of doubt and personal reservations about the variety of the information.

Reservation and doubt may be directed at the interpretation of events as well as at their description. Magistrate 6 gave an account of his exercise of reasonable doubt about the intentions of a defendant on a shoplifting charge. The fact that the goods in question were in the defendant's bag was beyond dispute. The Magistrate 6 was concerned that intention to steal the goods had not been conclusively established.

> In that particular case I was not satisfied beyond reasonable doubt that the defendant intended to take these goods... that he had any intention to steal... I wasn't prepared to disbelieve what he was putting on me... and I did not disbelieve him. (M6)

The interviewer asked how the reasonable doubt operated, "is it a bunch of facts filled up?, or 'can I believe my doubt...'?" The magistrate answered, "I don't know whether I consciously say, 'Can I delete my doubt?'... but you always have a doubt. 'Do I really have a doubt?' and if I have a doubt then he's out." (M6)

In each of these examples a magistrate was able to produce a decision by adopting the perspective of his own uncertainty. With that frame of reference in mind he was able to sort out the evidence and produce a personally satisfying decision. Even the decision to reserve had to be reasonable at the time, and would be followed by a re-application of doubt outside court. The functional value of the perspective was stressed, but its meaning was not explained. His reasonable doubt seemed to exist in a magistrate's mind as a well-known mental stance which could be adopted and applied to new information almost automatically. "You just make up your mind on the evidence... where the evidence is clear... you

The interviewer was able to explore the concept a little further with one magistrate who had been personally exercised about its meaning. He provided some background information.

> I've got to be satisfied beyond a reasonable doubt which is -- I was just reading a long article the other day on determining what is a reasonable doubt, and how you can put those words into other words which might explain or expand it, and of course all the cases tell you not to put that into other words, but a reasonable doubt means just that. (M5)

It can be seen that this magistrate had developed a way for checking information against his doubt.

> If I've got a doubt as to whether somebody is telling a story or as to whether a fact occurred, I spend some time thinking, 'Now, why do I doubt that that occurred? ... Is my doubt reasonable? If that didn't occur, what are the alternatives? (M5)

Once his doubt was activated Magistrate 5 would explore alternative explanations of the events.

> If that (event) didn't occur, what are the alternatives? One alternative is that I've been told a deliberate lie, which, although my instincts say I don't like it, I know that does happen in court. Another alternative is that the person has misinterpreted what he saw. Is that possible? Is that compatible with the other version that I have heard? And I run through the alternatives like that, trying to analyze the doubt that I have, and if I come to the conclusion... my doubt is reasonable... well then I've just got to give the benefit of that doubt... (M5)

This magistrate provided a cogent account of his system for testing alternatives against his doubt, yet later when the interviewer asked him to exaplain the processes by which reasonable doubt was applied to evidence, the subject fell back on a personal comment about his own cynicism. He said he could not say whether reasonable doubt provided an initial stance to be deleted, or an empty concept of skepticism to be filled up by detail.

> I think for the sake of expediency in doing cases in the volume that we do, I am better off working as the facts being established, 'Is my doubt working?', and measuring that against the doubt, or I think that's how I put it. (M5)

It seemed that this man's implicit theories about reasonable doubt had produced a rule of thumb for using it on conflicting stories. Whether the other magistrates had developed similar heuristics or not, they did not express cognizance of them. Reasonable doubt had the quality of an underlying perspective. Its character was understood and communicated by inference and by the active perspective which it imposes on information. Whatever the means of applying the perspective, reasonable doubt provided a powerful checking mechanism which facilitated the processing of evidence and induced confidence. It also provided a safeguard against which a magistrate could test his own deliberations.

The powerfulness of the concept is shown by the way in which one magistrate had adopted a similar notion of "a reasonable man" as his stance in civil cases. In civil courts the magistrate arbitrates between contending parties. Major factors are not legal offences as much as conflicts between persons, and at times, between personalities. There are no rules of evidence, so in these situations fairness to everyone is the general perspective which guides the magistrate.

> ... all you can do is what you feel on all the information before you (what) is fair to everyone. (M10)

Magistrate 10 said that he developed a way of determining fairness by adopting the reasonable man's point-of-view.

> ... I suppose it still goes back to the old level of a reasonable man, what you, in your own experience, would regard as acceptable... (M10)

For him the concept had its roots in personal experiences, and in social expectations.

> ... what's reasonable really depends on my experience... I feel I've had a fairly good mixture of persons, I think, and you can get pretty much of an idea of what people expect of you. This is the thing. I try to base what I think is reasonable on what people really expect (M10)

Magistrate 10's logic was that he had built up a perspective of reasonableness through a long series of encounters with other people's ideas and perspectives on fairness. Thus a useful idea has been extracted from years of working with people, and now provided him with a checking device for arbitrating between conflicting parties. It is possible that this magistrate's natural logic of the development of concepts of the reasonable man and fairness may provide a clue to the way the larger concept of reasonable doubt had been constructed by other individuals.

The notion of reasonableness or fairness does appear to be related to the public nature of the magistrate's role. "My doubt or my position is reasonable when I think it will measure against general and public expectations of what is fair." (M1). Magistrate 1 made explicit reference to the public responsibility of his role in this regard.

> ... I can give a decision, and every decision I give is appealable, but the majority of people won't appeal because they haven't got the money, or the Crown can't be bothered... So a tremendous responsibility lies on us to ensure that our penalties are reasonable and in the right case they are sufficiently strong to deter people from breaking the law. (M1)

This man felt that fairness was easily recognized, and that his notion of natural justice was consistent with the community value of "a fair thing".

> I think it's just -- oh, I don't know, I suppose it's what you're brought up with, what you listen to, what you read about, what you feel is a fair thing. (Pause) Um, ... there was the old Australian expression years ago (they don't use it so much now that the system has changed) but there was 'Fair go Aussie'. I suppose it's the right way of saying the Australian sense of the justice -- just whatever you think is a fair thing.
>
> I think that what is a fair thing is obvious to anybody. It goes without saying. I don't know about people in other countries, whether they could feel the same, but I'm sure it is universal. (M1)

Several other magistrates also felt justice and fairness best could be achieved by the adoption of a fresh start with each case and by a general perspective of openness. Personal openness by the magistrate was extended by Magistrate 9 to a belief in the essentially public nature of the magistrate's function.

> I am a great believer in, you know, being open. That's my view, open courts, sit in public, read in public. Everyone should be told...that's just a general principle. But then you deal with each particular case as it went along, but that would be the general approach, openness. (M9)

Another individualized perspective may provide further clues to the way in which reasonableness and fairness can operate at the practical level. Magistrate 14 prided himself on being able to make his own decisions. A magistrate does not "duck next door to confer with a colleague", he asserted. Yet when talking about decisions which could not be found in a book, he told how he would sometimes assume the presence of a respected other person sitting beside him on the bench.

> ... I have found myself with a respected neighbour, business associate or friend, notionally sitting alongside me and that might affect me. I might have one of my own children notionally sitting beside me, and that might cause me to make a better judgment. (M14)

Thus his imagined justification of decisions to someone he respected provided a checking perspective. While the direction of his imagined justification is particular and immediate, the perspective is not very different from that expressed by Magistrate 10.[1] Both adopted the stance of imagining what would be accepted as fair and rational by an assumed audience.

Justice, as fairness to all concerned, is a keystone of the legal systems of democracies. How to administer law fairly is the daily practical task of magistrates. Magistrate 1 explained how the principles of freedom and fairness are administered through rules, and how it is the magistrate's task to enforce those rules.

> I think the basic principles are right that, er, the rules are there to enable us all to have a freer life. The rules are not there to restrict our lives, but to ensure our freedom. And the only time there's no freedom is when there is no rules. Then it's the law of the jungle and the strongest man wins. (M1)

Interviewer: So how do you see your role in relation to society?

> I am just the representative of society. Parliament is the main representative in our system. It decides what the people want and it translates the people's wishes into rules and I merely enforce those rules. (M1)

> ... if I send someone to gaol they might not think I am fair, but I feel I can justify my decision. I feel I can sort of meet them in the street, anywhere and tell them 'This is what I did it for, and this is why'. As a matter of fact I always try in court to tell them why I do what I do. (M1)

Fairness and reasonableness may be seen as perspectives for organizing evidence which were intrinsically associated with public representativeness and accountability. Yet concurrent with this public aspect of his role, each magistrate in our sample was very much an individual person with a particular set of experiences, expectations and values. In

1. See page 16 above.

visiting their offices and courts one developed a general impression of speaking with a person who was an individual conscious of his personal self and his own court. These men adopted different perspectives for bringing their unique contributions to judicial decision-making. Some were more explicitly confident than others of their ability to weigh facts in a purely objective manner. Others acknowledged the individual, intuitive nature of their deciding. Two examples illustrate different perspectives on the adoption of an impartial stance in judging. One magistrate said that he found no difficulty in being objective, the other explained how he worked to exclude his personal beliefs and values.

Magistrate 1 explained that he did not look for patterns or regularities in his judging. A case was decided on the facts, and facts were seen as objective, attainable entities.

> I try... especially on penalties, to start afresh every time. I deal with the facts. I start from that basis. I've got to get the circumstances of the events. (M1)

When the interviewer asked him to comment on research that jurors were influenced by defendant's appearances, Magistrate 1 was confident that he operated from an impartial, fresh perspective every time.

> Oh, it never make any difference to me. I could look at a guy and say, 'I don't like you. But the police haven't proved their case'. It's as simple as that, professional. It's like someone operating on a Nazi, or a Hitler. They just do their job. (M1)

In contrast Magistrate 12 specified the importance of being awake to preventing his own value-stance from intruding on his judging. It was not only a matter of ascertaining the facts of the case, but also a matter of avoiding any tendency of structuring information according to his onw value criteria.

The interviewer had asked him about the ease or difficulty with which he decided on an hypothetical dilemma.[1] The magistrate said he found it easy because he was able to fit things into patterns. When asked how the pattern operated, he replied:

> Well, I suppose it is basically a person's outlook on life, what life is all about, why we are here, what we are doing, and what is expected of us. Um... I follow a particular way of life and I judge all fact situations by that particular code.(M12)

The interviewer asked if the same pattern worked for him on the job. Magistrate 12 said he saw the possibility of the intrusion of personal values, and explained how he avoided that possibility.

> In the job... I think it must affect you, but there are some things where you can't allow it to affect you, things like prostitution... mostly things that you personally, your own religious outlook disagrees with... That gets very difficult, because then you have got to say to yourself, 'look, I can't allow my personal view on this to permeate what I am doing'. But I think it is still a very difficult thing to prevent it from happening because it still tends to creep in. (M12)

Thus he appreciated that the personal qualities and values which fitted him for his role needed to be isolated from his processing of cases as a representative of the people.

The personal character of the judging role was explained further, and with specific reference to the determining of sentence by Magistrate 8.

> This is the hard part of our job, what to do. And you get the one magistrate and another one sitting beside him and with the same set of facts, and the same circumstances, the same person they might do two entirely different things. (M8)

In answer to the question, "What would that depend on?" Magistrate 8 replied, "I think it would depend on his general view..." He explained that while some people might think property matters were most important,

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1. Lawrence (study in preparation).

others like himself "in the scale of things regard property offences as down the line" because they do not involve injury of persons.(M8). Thus personal value perspectives influence the values placed on various features of a case.

The development of a general reliance on one's own frames and intuitions was expressed in different ways, but exhibited the same kind of personalized approach. For example, one man referred to a sixth sense developed from experience.

> ... to some extent you get a what, a sixth sense as to what is the correct thing to do, and I am not sure whether that hasn't been arrived at purely by your experience. (M13)

Another said that judging juvenile offenders sometimes involved following personal inclinations. Numbers of young people could make successes or failures of their lives and "you can be inclined to give them chances or not". (M7)

When asked "How do you work that out, or is there any way you can work it out?", he replied.

> No, I think, you know, to take each case as it comes, and take a punt sometimes and it may be right or wrong. Sometimes you may find out you were wrong because you've given someone too much of an opportunity. The circumstances are, you know, pretty familiar. (M7)

Magistrate 15 described one perspective as the accumulation of a series of patterns in a magistrate's mind. Patterns are built up by experience inside and outside court and are used to recognize similarites and regularities across cases. However, a good magistrate is one who is able and willing to lay aside his classifying patterns in order to look for the exceptional.

> In a sentencing situation I think people basically operate via patterns. They adopt a style... that style might contain elements which are questionable but I believe basically, finally, a sentencer develops a pattern and he follows that pattern. (M15)

It is dangerous to rely on patterning perspectives or to view a case through a set of preconceived streotypes, "... so I think a good sentencer has to be alive to the unusual. He oughtn't have everything dragged into his streotyped patterns." (M15). The good magistrate drawns on a repertoire of possible explanations for the features he observes. He does not try cases routinely. Rather according to Magistrate 15, he is able to pick out the odd case and break out of his own perspectives.

Thus while some of our subjects considered themselves to be free of personal perspectives, and others worked to nullify their influence, still others acknowledged the existence and usefulness of individual frames which a judge brings to his deliberations. All considered that they operated rationally and fairly.

In summary, the importance of general perspectives like fairness and reasonable doubt emerged from the interviews. They provide criteria against which information can be assessed. Other perspectives like personal views and tendencies to look for patterns or to extract features were shown to be general systems within which the evidence is structured. Organizing perspectives cut down on information load, and provide broad directions for sorting of details of cases.

Information-Processing Strategies

As well as general systems of thought processes, the magistrates identified several specific cognitive strategies which they used to accumulate and evaluate court-room evidence. Different strategies were described in relation to phases in the development of a case, the type of offence, or the quality of information available to the magistrate.

We have classified these information-processing procedures which the magistrates specified within four phases of a case's development. The phases follow a rough sequencing order which we detected in some of the

magistrates' accounts. They provide a way of organizing the data as magistrates' application of information-processing strategies to evidence for the purposes of:

(1) establishing a base-line of evidence;

(2) acknowledging constraints;

(3) accumulating and evaluating evidence;

(4) summing up evidence and pronouncing judgment.

No single magistrate said that he used each of the strategies we discovered in the transcripts. An individual was not asked to identify every possible procedure he used in court, nor how he would construct a judgment for a single case from start to finish. Different strategies are demanded by different cases. Cases vary in content and features, and therefore in the ways that evidence can be accrued and evaluated. Some cases require attention to a particular kind of detail. For example, the seeming duplicity of a witness may require that extra attention be given to the sifting and weighing of statements, or, the intricacies of an obscure law may require extra reading and study outside court. We have sampled the accounts of strategies obtained from several magistrates in order to describe the types and range of cognitive operation which they specified. The sequence of the four phases is used as a way of building up a picture of an example case. The description is of a prototype, with the acknowledgement that each case will demand a unique response according to its particular set of features.

The magistrates' illustrative accounts of the processing of evidence are presented in detail alongside the text. Each sample quotation is numbered from the first (Q1) to (Q42), and each is referenced in the text. Wherever possible we have provided one or two examples of an operation we are describing. It was our aim to provide the reader with enough detail to allow him or her to both comprehend and evaluate our description of the magistrates' accounts.

1. Establishing a Base-Line.

Two types of strategies were specified as ways of establishing initial approaches to case, and of determining a starting place. One referred to the necessity of adopting a fresh start each time, the other referred to determining what could and could not be admitted as evidence.

(a) Treating each case individually

Quotations from the Magistrates

We have suggested above how the magistrate's a priori perspectives can frame the evidence of a case, and we have indicated that some subjects did not accept the idea of organizing frames.[1]

Whether or not individual magistrates acknowledged the presence of structuring tendencies, there was a general consensus about the need to treat cases as separate and distinct entities. Two subjects expressed this general view as the need to treat each case individually (Q1,Q2)

Q1

I try... especially on penalties, to start afresh every time. I deal with facts from that basis. I've got the circumstances of the evidents. (M1)

Q2

I try to treat each case individually... well you are looking at their own case, as something is a new case, although they might not be starting with a clean record or anything because they have got their own record there. (M4)

1. See page 19 above.

Another subject expressed it in more general terms as the application of the principle of openness,(Q3)

Q3

You deal with each particular case as it went along, but that would be a general approach, openness. (M9)

Magistrate 12 expressed a general notion succinctly by juxtaposing the concepts of the uniqueness of each case, and the existence of patterns. Each case is unique but information usually fits into a familiar scheme, (Q4)

Q4

I don't think there is any typical case. I mean every case is... to some extent follows the same pattern but it is still different. (M12)

Thus the case begins with the appearance of the defendant and the reading of the charges. The magistrate's task is to hear and evaluate the evidence in order to determine if the charges have been proved according to law and in order to impose legal sentence. Openness, impartiality and fairness frame the magistrate's thinking at the outset of a case in order that he may establish an initial starting point on which to base proceedings.

(b) *Determining evidence*

Magistrate 12 specified that as much relevant evidence as possible should be gathered,(Q4). Police and

court reports, the defendant's previous record, the statements of counsellors and witnesses must be built into a super-structure of information, (Q5, Q6). Judgments are based on information, and on information which is both factually reliable and pertinent to the charges. The magistrate must accumulate and evaluate that information. However, he is constrained by a number of factors. His problem-solving strategies are not used in a benign, disinterested laboratory. The magistrate must work with incomplete data, and his processing is always constrained. Statutory procedures set external parameters on how much evidence he obtains, and human intentions may deny him important details.

Q5

You look for everything that can help you make a decision... But in every case something comes through predominantly. It is very unusual that there is not a factor that becomes quite important. (M9)

Q6

... you've got particular ingredients of particular cases and you've got to follow whether they've been established or whether they've not... but you can be influenced by knowing, for instance, that the same person has appeared before you on some other occasion... (M7)

2. Acknowledging the Constraints of Judicial Decision-Making.

Every human problem-solving task is set within particular parameters. Some parameters are external and some are inherent to human cognitive functioning. It is so in court. The physical and temporal constraints of the court-room, the legal parameters of the law of evidence and the intentions and abilities of all participants impose particular constraints on what the magistrate can find out and how he can use what he discovers about the case.

(a) The laws of evidence

The legal decision-maker must function within certain proscribed boundaries. Procedual rules lay down what he can ask, and what the other persons are required and not required to reveal, (Q7,Q8)

The law limits the quality and detail of evidence for decision-making, and provides the criteria by which the body of evidence can be evaluated. Certain activities are permitted, others are not, and the magistrate must function within the legal boundaries of the court-room, (Q9)

Similarly in sentencing, the magistrate must work within a range of penalties proscribed by parliament. Several of our subjects reflected on their limited powers for imposing penalties.

Q7

... I hear two sides of the story... before I can decide what courses of action I am going to do on a case, I've got to decide which facts I accept and what I accept as facts... and if the facts haven't been proved by the person who has the responsibility, well, they lose, so it is important that I determine what are the critical facts.(M5)

Q8

... you are in dreadful trouble because you might want to know something. It's not been presented to you by either party, and it either may be calamitous for one side or the other if you ask the questions, so that's one of the real dangers of making your mind up is, do you ask this particular question? One side has shut up about it. (M9)

Q9

... forms certain opinions as to what the issues are going to be and how difficult it will be to reach a finding on those issues of facts. Sometimes he sees that the law is going to be difficult and that no matter how good his findings of facts are, he is going to be struggling to win on the law. (M14)

Other parameters on judging include the phenomenon explained by magistrate 9 that he probably will find himself as the only person in court concerned with finding out the whole truth. Other parties will be hoping that the rules will serve their several end,(Q10). The impartiality of the law permits the partiality of all parties except the magistrate. He must work with the information that is allowed him.

Q10

... the people (who) are judging what the court does, may know a multitude of other factors unknown to the court and they can only make their minds up with those factors... those out of court, and those presenting them, usually know, oh, at times, 50% more and sometimes 100% more, and this is the great problem the courts face. (M9)

(b) Limited information is available

Not only is information constrained in terms of sources and procedural rules, but it is also limited in quality, (Q11). Magistrate 9 outlined for the interviewer his understanding of the limiting factors on the building-up of the evidence of a case. He pictured a frame which is placed around his judgment-making by the law and the participants. His task involves pushing out the sides of the restricting frame by asking for data, while observing procedural rules,(Q12). The judge may be the most ignorant person in court as well as the only one committed to uncovering the truth, (Q11). The intentions, insufficiencies

Q11

The facts are as good as the people who give them. That's the problem in our area. The problem is, what is fact, and what is truth in areas... (M15)

Q12

The other side doesn't present it to you... In a judgment there is definitely a frame. All you can do is push the sides out. You can make it bigger... but whichever, you are still constricted at some stage. You are not allowed to find out any more. At some stage you are stuck. (M9)

and inexperience of counsellor, witness and defendant may impede the magistrate's collection of truthful and relevant evidence,(Q13). So the experienced person on the bench must use his own skills to draw out relevant material, and to allow the person to make a better presentation. If he thinks that the witness is lying, the magistrate may confront him in the manner described by Magistrate 14 in Q14.

When asked why he would throw out that challenge, Magistrate 14 replied that it was "to give him a chance." Q15 illustrates the way in which this subject used his question as a check on the veracity of the report, and thus pushed out limitations on his evidence-base which were unintentional, and were distinguished from consciously dishonest testimony, (Q15). Thus the judicial decision-maker is active in the procedure, minimizing possible human constraints and maximizing the opportunities provided by the law and his own expertise to build a body of evidence.

Q13

The skilled counsellor can lead, they are breaking the rules so that his client nods his head and instead of getting the evidence of the witness you are getting the evidence of the solicitor. (M14)

Q14

Of course sometimes it is plain that witness are lying and you put it to them, 'How come you have said this just now? And a moment or a couple of pages ago I wrote down that you said something quite dissimilar. Could you explain?' And you can sometimes say, 'It looks to me as though you are not to be relied upon, because one moment you think it suits you to say that; then in answer to another question you say the reverse. (M14)

Q15

To give him a chance. To give him a chance very often I will say, 'It looks to me as though there is an inconsistency here. Will you please explain?' 'Oh, I am sorry about that.' We often have corrections. 'Sorry, I made a mistake there.' I just simply say 'correction', and all is well. But very often it is plain, once you do confront the person, that he doesn't wish to tell the truth. That's only in a few cases. It is not the general thing and it depends on the nature of the case that you are dealing with. (M14)

(c) Time constraints

Time imposes an additional external parameter, (Q16). The magistrate must function within a set of expectations of definite ability to get through the day's load of up to 100 cases. Thus temporal and other physical factors may further constrain how expertly the magistrate can push out Magistrate 9's constraining fraome by imposing urgency on the process, (Q17).

Q16

Certainly in a court like this you have to make quick decisions. (M13)

Q17

... finally the magistrate has got to come to a decision, and he has got to do it straight away. (M15)

(d) Personal perspectives must be acknowledged

The general tendency for magistrates to respond to patterns in cases was described by Magistrate 15, and reported as a general perspective.[1] Conscious acknowlegement of patterning tendencies, and the resistance of the imposition of personal perspectives is treated here as a specific strategy which was used in the service of building up a body of evidence, (Q18). Two other examples illustrate conscious activity by magistrates not to be influenced by their own perceptions of defendant's appearances, (Q19). Magistrate 8 described his own reactions to a young man brought into

Q18

... this is a terrible danger in our field, that we grab everything and put it within that kind of circle and there is a great possibility here that we ought to see it outside that circle-- that it is a new situation and ought to be dealt with differently...
... he ought to be helped by people at the bar table. I mean this is where they fall down, he ought to be helped to recognize a situation which requires unusual treatment... I don't think this happens often. (M15)

Q19

I try not to react to my personal judgments of a person as they stand there and talk. (M5)

1. See page 21 above.

court who "looked terrible and had been on drugs," he described his attitude to appearances, (Q20).

These examples suggest a similar tension to that articulated by Magistrate 15,(Q18). When perceptions or evidence seem to slot into a well-known patterns, the magistrate must consciously activate his own sense of the unusual. Magistrate 15's dynamic tension is reminiscent of the concepts of starting afresh and openness expressed in Q1 and Q2. Magistrate 1 said he avoided any potential influence of appearances by consciously starting afresh, (Q21). But Magistrate 15 went further than the ideas of fresh starts illustrated in Q1, Q2 and Q21. He specified a procedural rule of thumb for retaining a fresh, open and curious perspective. What he described was a counter-attack on the natural tendency of looking for the known and the familiar. One consciously looks for "the unusual",(Q18). This concept of searching for the unusual may be the type of strategy which activates the magistrate's doubt and pushes out the sides of the frame on a case.

Q20

... but that affect so far as I am concerned the way I deal with a person. With a conscious affect, some people dress up for the occasion, and here it comes in because people higher up the social scale are able to dress better anyhow and the standard of dress of an ordinary person might be different altogether from them. Why should that influence the way the court deals with the matter? That's my view. (M8)

Q21

I feel always fine in any decision-making situation. It's easier to make a fresh start... (To question about appearances and perceptions). (M1)

Other descriptions of problem-solving have profitably define the differences between strategies in which patterns are recognized, strategies by which features are extracted (Lindsay & Norman, 1977; Mandernach, 1978). A formalization of the two concepts in relation to court-room variables may provide a means for the development of a practical rule of thumb for creative and productive tension in the acquisition of judicial evidence.

3. STRATEGIES FOR ACCUMULATING AND EVALUATING EVIDENCE

The magistrates identified four specific operations that were used for receiving evidence, and for processing it as the basis for judgment-making. They are grouped together for clarity and completeness, but individual evaluation procedures which were identified could occur at the outset of data-collection or at other points throughout a case's development.

(a) Building up the evidence

The magistrate has to construct a case for judging and sentencing by gathering a factual account of the crucial events and by assigning meaning to these events in relation to the charge. Q21 provides a summary of the accumulation process. Magistrate 2 focused on how a magistrate

acquires the evidence and builds the superstructure of the case. He explained how he would prepare the data for a final assessment, using his own notes, and assigning value to pieces of evidence as they were acquired. New information is classified as either wheat or chaff, (Q21).

Q21

... the facts usually come out during the case and especially if you make fairly comprehensive notes as I do, the facts come out as you go along and you sift the wheat from the chaff and make little notes in the margin and that by the time you come to the end of the case you look back over your little marginal notes, which are the wheat rather than the chaff, and you have got enough then to make a decision... (M2)

(b) *Forming early hypotheses and opinions*

Magistrates 14 and 13 provided direct evidence of the early hypothesising which is used by expert problem-solvers, (Q22, Q23). Tentative hypotheses formed early in the case while data is accumulated allow the decision-maker to fit incoming information together to make one or more possible solutions. The possibilities either can be held together in memory for subsequent evaluation, or each possible solution can be tested in sequence. The nature of our data precluded our making any observations about the actual testing procedures which the magistrates used. However, Q22, Q23, and Q24 provide clear indications of the early generation of opinions which encourages us to

Q22

... I form my opinions on the evidence as it comes out. (M14)

Q23

One looks at the file. He forms certain opinions as to what the issues are going to be and how difficult it will be to reach a finding on those issues of facts. (M13)

Q24

So I came to a decision, or a tentative decision, in my mind fairly early in the case... (M6)

place the decision-making of these magistrates in the tradition of expert problem-solving. We hope to examine the ways in which these early hypotheses are confirmed or elimiated by asking magistrates to process complete cases in further research.

Magistrate 13 expressed a less-specific early procedure in referring to a well-worn automated system, (Q25). He was aware of a programme in his head which could be activated and run off. Detailed evidence of automated procedures would require observing how a decision is triggered and produced. Yet there are strong indications in quotes from Q21 to Q25 of the fruitfulness of applying information-processing analyses to the production of court judgments. His own tentative hypotheses, personal and external frames, the dictates of laws of evidence, all require the magistrate develop effective and efficient strategies for selecting important details.

Q25

... in many cases the decisions are easy to make. You put your judgment-making processing in your mind and you come up with the answer in seconds... (M13)

(c) Selecting and sifting evidence

Any body of information which is the basis of decision-making must be classified as the relevant and the irrelevant. A selection procedure is used in order to define what information will be regarded as pertinent to the case and what will be defined as distracting and unproductive.

Selection strategies were described by Magistrate 7 as his own mental classification of data into different boxes. His selection was made in the service of building relevant details into a total body of information and ignoring the irrelevant, (Q26). Similarly, Magistrate 8 said that he limited attention to facts which he admitted as relevant. The rest he shut out, (Q27). In the following quotation the same subject made his covert selection strategies more explicit. He actively looks for certain particulars which will influence his deciding, for example, the defendant's previous record, (Q28).

Magistrate 6's account in Q29 provides an example of selection and admission of relevant data on the

Q26

... some people say they could not do, or don't understand how I do it, by putting questions into little boxes, so to speak, and not allowing them to be influenced by outside considerations, as you build what the facts really are of the situation and not be influenced by other information that you might have. (Pause) And, I mean, I think there is a progressional -- how those things add up, as to how they sway your decision one way or another. (M7)

Q27

And really, decisions seem to flow as a matter of course because you, in the end, I guess, shut out a lot of stuff which you consider is irrelevant -- like the lawyer's garbage -- and you limit yourself to a certain given set of facts in dealing with matters, the only way you can do it. (M8)

Q28

Well, they are cases in court where you've got particular ingredients of particular cases and you've got to follow whether they've been established or whether they have not. (Pause) That's the sort of thing I mean, but you can be influenced -- you could be influenced by knowing, for instance, that the same person has appeared before you on some other occasion. Supposing you've got a case of someone who is up for car stealing and the fact that he has been up for car stealing before they could influence you. (M7)

criterion on the magistrate's beliefs and doubts. A piece of evidence was supplied by the defendant and the magistrate admitted it as part of the relevant information for the case because he could not disbelieve the defendant. This example illustrates the application of personal belief or doubt to a specific piece of information as a selection procedure. The magistrate's belief and admission of evidence was provoked by the defendant's straightforwardness. Belief is less confident and specific than Magistrate 1's strategy of "I deal with the facts" (M1), but it supplied Magistrate 6 with an active selection strategy.

Q29

... I wasn't prepared to disbelieve what he (the defendant) was putting on me that, and I suppose I came to that decision because he gave his evidence in a straightforward manner and when he was cross-examined about this he appeared to be, as much as one can judge, telling the truth... (M6)

Human processors of data do not simply absorb undifferentiated conglomerations of information Attention and evaluation procedures are used to filter in-put and to assign weights to evidence as it is received.

(d) *Concurrent evaluation of information*

While the accumulation motif suggests that a body of data is built into a super-structure, accumulation

is not value-free absorption. Not all incoming data is accepted as of equal importance. As a piece of evidence is sorted into the relevant box, it may also be assigned value and weight. Three examples give clear indications of the activity of evaluation strategies before all the evidence is accumulated. Magistrate 14 showed evidence of his use of the kinds of early hypothesing which marks the problem-solving behaviour of the expert (Chase & Simon, 1973, Mandernach, 1978). In Q30, he made explicit reference to the early forming of opinions, and to how he evaluates evidence. He explained to the interviewer how he makes two types of notes on his paper; what is said, and his own concurrent evaluation (see Q36). They are differentiated from each other for a final re-appraisal. He would structure the counsellor's input in accord with his own a priori assumptions about significant issues, (Q30). Organizing strategies were mentioned by Magistrate 7 who spoke of actively seeking relevant information to set against his own imaginary list of required material. Data were received as

Q30

As each witness starts to open his mouth you are assessing the evidence...
... you form tentative opinions as to your problems and how you'll get around then...
You tell counsel issues as you see them... usually a magistrate knows issues before he goes into court...
I form my opinion on evidence as it comes out. (M14)

weightings for particular hypotheses, in that, "they add up towards one direction or another", (Q31). In this case the decision was about how to sentence. The magistrate tested possible courses of action by receiving specific evidence and evaluating the information, and his own tentative decision.

Q31

I know you are forming some sort of idea of questions in your own mind that you look for that you'll get answers back and start ticking those off, I suppose, so they add up towards one direction or another. For instance, you'd ask has this person got suitable accommodation for himself and does he need a supervised place of accommodation? (M7)

In referring to a particularly difficult case, another magistrate explained his weighting of various pieces of information throughout the proceedings. His statement illustrates very clearly the magistrate's checking and selection behaviours, and his independent evaluation of the large body of information. His direction followed his personal assignments of greater value to some details than others. "I was going back to other point... clearing up lines of thought", (Q32). Magistrates 6 and 14 both made specific reference to the use of rules in the final assessment phase of his judging, (Q33, Q36). While it is not certain whether "the rules" referred to rules of evidence or of procedure, they provided assessment criteria. His own reasonable doubt

Q32

... checking while the evidence was going that this was all factual material that was relevant and supportive of the claim...
... I suppose as the case proceeded I was weighing, you know, I was just going backwards and forwards...
... the counsel was drawing my attention to various things... but even while they were talking I was going back to other points of particular interest to me, clearing up lines of thought that I had which what they were putting to me suggested to me... (M6)

Q33

I would look to see whether there are things that I call rules which do govern the situation and to what extent, you know, they are binding and whether they are applicable to these facts... (M6)

was specified as another evaluation device by Magistrate 12. This time the subjectivity of the mechanism was given special mention. There is an underlying notion in all three statements of a standard or a criterion which is being used as checking and assessment device. Information is selected and assigned weights throughout the whole task. However the inherent importance of the decision demands a final integration evidence, and a checking phase.

4. Summation and Assessment of Evidence, and Pronouncement of Judgment.

Several examples indicate final summation and evaluation of material, (Q34 to Q42). Magistrate 12 described reasonable doubt as a weighing device, (Q34).

Q34

Well, I suppose you would have to have a mental weighing apparatus. This is, you know, the interesting problem of what is beyond reasonable doubt? It is obviously not beyond all doubt. That is beyond reasonable doubt and that is again a subjective assessment rather than an objective one. (M12)

The scales of justice provided him with an appropriate means for describing his summation procedures in Q35. Weighting and differentiating criteria are applied to selected pieces of information in the final phase of judging. Previously certain elements in the evidence has been specified as needing to be satisfied before judgment.

Q35

... there are a number of things that have to be proved... ... so you listen to the evidence and see whether the prosecution establishes each of those six elements. If they do and the scales are weighed down heavily in favour of that proposition, then you find the person guilty. (M12)

If those elements have been established when a check is made, then a judgment of guilty is handed down. Thus earlier processing of the information is re-checked and pulled together prior to judgment, (Q35).

The relationship between early processing and the summation of a case is well-described in a rather long quotation from Magistrate 14. It is presented as one account of a well-developed heuristic for accumulating and evaluating data, (Q36). The magistrate described how he typically follows the development of a case, aware that it is his duty to make a decision at the end. In order for him to fulfil that duty, facts are accumulated, and flaws and anomalies noted. Alternative hypotheses are generated and tested and salient features extracted from the body of evidence. The final phase then becomes a rule-governed re-appraisal and assessment. This subject's easy reconstruction of the progress of a case demonstrated that he had developed a working system for fitting together the particulars of a case for careful,

Q36

... You now have facts supporting this decision, but there are flaws in this story that is coming up. Make a note of those flaws... as each witness opens his mouth you are assessing the evidence towards what decision you are going to make...
... later on you might draw a line through that notes as being irrelevant... you start reaching your decision from the beginning. As soon as you have enough material to be forming hypotheses, you form those hypotheses, and if you are lucky and find that the evidence is cumulative towards that first hypothesis how lucky can you be...
But you would, of course, find material that is contrary to the hypothesis you have formed... so... you make other notes to the contrary. You build up a note... and eventually you have got the dilemma well and truly in front of the other. These are the condensed merits of each facts as I have subjectively extracted them. Before very long I shall have to toss my penny as I put it... because you go on the rules... (M14)

final analysis. In the final phase he did the powerful checking of early work which is one of Polya's (1945) marks of efficient problem-solving, (Q36).

A checking procedure involved the satisfaction of a set of covert questions and the testing of hypotheses for Magistrate 7. Evidence was directed at answering specific questions, and the consequent weighting towards one of the possible solutions,(Q37). Information about the use of two different checking devices was obtained from Magistrate 5. He said that he preferred to build his judgment on the factual evidence of the events of a case, but that this is not always possible. Two versions of the same events may conflict without being untruthful. Each account may be correct as far as it goes. In such a case the checking device must be the magistrate's reasonable doubt. The magistrate has to re-process the evidence and decide whose story is most plausible. Choice of the most believable story was based on this magistrate's own experience. He said he made a judgment of relative

Q37

You are forming some idea of questions in your own mind that you look for that you'll get answers back and start ticking those off, I suppose so they add up towards one direction or another... (M7)

Q38

When you hear two versions of a story, unfortunately I can take the easy way out and say "well I don't know which is the truth..." The two versions can live together. It doesn't mean that the policeman is lying. He reports what he observes and the other persons says "well, yes, he observed me doing that but this happened beforehand when he didn't see it..." So the two versions can live together in those circumstances... You've got to give the benefit of the doubt that you have. I prefer if I can come to a decision on facts... I've got to give reasons for my decision... (M5)

likelihood, and checked his choice against his reasonable doubt, (Q38).

If doubt cannot be resolved, and there is still enough evidence to make possible the judgment of guilt a case is usually reserved and re-checked.

Checking procedures used outside the court-room may vary between magistrates. They may involve the writing of fresh notes and summaries. In relation to a particular reserved decision Magistrate 6 was able to resolve his doubt in the act of summarizing the data, (Q39).

Magistrate 2 said that he often found himself awakening in the early hours of the morning to work on a difficult case. He would re-process the material, then leave it for a final assessment at another time, (Q40).

Checking and final assessment of evidence is directly related to the expectation that the judge must make his judgment public. His primarily covert and private processing must come to a conclusion which issues in a public and justifiable verdict and sentence. A magistrate is well aware of the possibility of appeal against

Q39

I came at the end of all the evidence and the addresses, I mean I reserved my decision... I was still in my own mind reserving a final decision until I had started to write it out because the very act of writing things out, when you have to state your reasons, then you do find that it's leading to a train of thought which can sometimes get you into a different decision, maybe the opposite decision, to that, you know, that you came to initially. (M6)

Q40

... sometimes when I've got a reserved decision I will wake up about three o'clock in the morning and I'll go over it quietly and things will come to light... resolve certain things and the next morning I'll come in and make a few notes. I'll look up the notes of evidence and just make a few notes... (M2)

Q41

I was under a duty to the high court to state the particular matters as I'd seen them, the factual situations as far as if this thing did go to the high court, it would be settled and the high court would only be dealing with the questions of law. (M6)

his decision in a higher court.

One of the ramifications of Magistrate 6's civil case was his knowledge that his decision probably would be followed by an appeal; he needed to set out his reasoning clearly, (Q41).

Magistrate 13 gave a classic account of the various facets of the procedure for imposing a public sentence, (Q42). The statement traces through a sequence of sub-processes for proscribing a particular penalty on the basis of a set of criteria and questions. Again a generalized set of procedures is particularized.

This quotation is reproduced in full to demonstrate how the decision to impose a particular penalty was constructed by Magistrate 13 in a systematic way. He worked through a series of questions and alternative penalties. There was an unusually clear articulation of a sequenced approach to the appropriate decision.

Q42

Well, I think I approach it (sentencing) the way that the experts say we should approach it. You first look at the penalty prescribed by Parliament. Then you look at the alternatives that you have got by way of probation and parole, dismissal under the section of the code for first offenders. In a serious case you look at the question (and I think this is the first question you've got to decide) is the offense so bad that it merits imprisonment? (Pause) And that is the first thing you look at: imprisonment or no imprisonment? Well, now, in 99 cases out of a 100, for a first offender you will decide that imprisonment is not possible so then you look at the alternatives and we have the alternatives of a fine, um,... in some cases coupled with another penalty such as (in a traffic case) a disqualification of the driving licence, a conviction of a second-hand dealer, you might say cancellation of his second-hand dealer's licence, or some ancilliary punishment, but firstly then you look at either a fine combined with such an ancilliary punishment or you look at whether or not perhaps the matter is fairly trivial and may be dismissed. If you have got a comfortable assurance that the person will not appear in court again, will not repeat that conduct, then if you feel that the person, for some reason, needs guidance or counselling, is perhaps immature either through years or mental ability, then you would make a probation and parole order, with the object of turning that person who has offended from the path of ever doing a dishonest thing again, or a wrong thing again, and giving the Probation and Parole Service the opportunity of turning him into a good citizen. So that is the way I go about it. (M13)

In summary, we have described the magistrates' reports of their decision-making operations in two major classes of cognitive activity. First we described reports of the application of general cognitive perspectives to new cases. Secondly cognitive strategies were described as ways of processing different pieces of evidence. Cognitive work on information was performed in the service of the accumulation, evaluation and integration of evidence of a case. The magistrates also specified the kinds of constraints which were imposed on their decision-making from external and personal sources.

A Tentative Model of the Magistrates' Decision-Making Processes

Our understanding of the magistrates' accounts led to the development of a description of the way in which a magistrate might produce a judgment and sentence. We have integrated the cognitive perspectives, specific information-processing strategies and court-room constraints into a tentative model of magisterial decision-making which is illustrated in Figure 1[1].

Our description traces the development of case as the magistrate builds up the structure of a body of evidence in a natural progression from a starting question of "What information is available in this case?" (1) to the pronouncement of judgment and either imposition of sentence or dismissal of the case.

The magistrate's base-line involves treating each case individually, and he establishes his data-base as evidence available from court reports and documents, and evidence which is revealed to him in court-room proceedings (2). He receives and accumulates the evidence (3). The magistrate is not a passive recipient in the process. He forms and

1. Figure 1 is shown on page 52. Numerical steps are referenced in the text.

tests hypotheses and opinions, often early in the case (4), but possibly later. He selects and sort evidence (5), and evaluates the relative importance of incoming information (6). In a final summation phase of proceedings the accumulated and sorted body of evidence is re-assessed, checked and integrated (7) within framing parameters. The magistrate must be satisfied that a decision can be made (8). If he is not satisfied, he reserves judgment and re-processes the evidence (9). When he is satisfied that judgment is possible, he makes a judgment. He either pronounces a judgment of not guilty (10a) and dismisses the case (11), or he pronounces a judgment of guilty (10b), and asks if sentence can be imposed (12). If he is satisfied about sentencing the offender he imposes sentence (13). If he is not satisfied he re-processes the information (feedback loop at 12).

Two classes of factors frame, organize, facilitate and set parameters on the magistrate's decision-making operations. General perspectives are blends of previous knowledge and experience, personal values and philosophies which exist in the magistrate's mind. These influences shape the magistrate's perceptions and processing of the present case. Reasonable doubt, openness and fairness are three major examples frequently mentioned in the interviews.

Factors external to the magistrate's cognitions impose further constraints. Limitations are imposed by statutory procedures or the way the court system functions. Examples are the laws of evidence, ranges of penalties laid down by parliament and time constraints. Other human beings are sources of additional parameters on information-processing, for example, intentions and abilities which are revealed to the magistrate as the performance of participants in court.

While the model is a somewhat artificial hybrid it is proposed as a foundation for future studies, and as a set of expectations which can be examined empirically.

This report is the first of its kind as far as we can discern, both in terms of its intent and in the information it has provided. We did not seek to describe judicial judgments and sentences as correlates of a barrage of personality measures and personal or social statistics. We have not analysed the statistical records of numerous cases related to a particular type of crime or defendant. We considered that the professionals who make court-room judgments could supply an initial body of information about their own cognitive processes, and thus provide direction for further research. The study indicates the usefulness of viewing magistrates as decision-makers, and of describing their work from an information-processing approach.

Several sources of constraint related to sampling and methodology must govern any implications which may be drawn from this report. Our sample, comprised of volunteers all of whom were males, cannot be said to be representative of any other group. However, generalization was not our purpose. The report is presented as our understanding of the accounts given by 15 men, and the interpretation itself is open to scrutiny. The usefulness of the study is dependent on a close examination of the actual accounts as we have presented them. They are representative of a large body of information, and have been reported as illustrations of either commonly-expressed cognitions or of the kinds of unique operations which should be investigated in other studies. The possibility of experimenter bias has been weighed against the possibility

of providing empirical directions. We present the report with these constraints as a basis for discussion and as the precursor of further studies in which other methods of data-collection and analysis may be added in replication.

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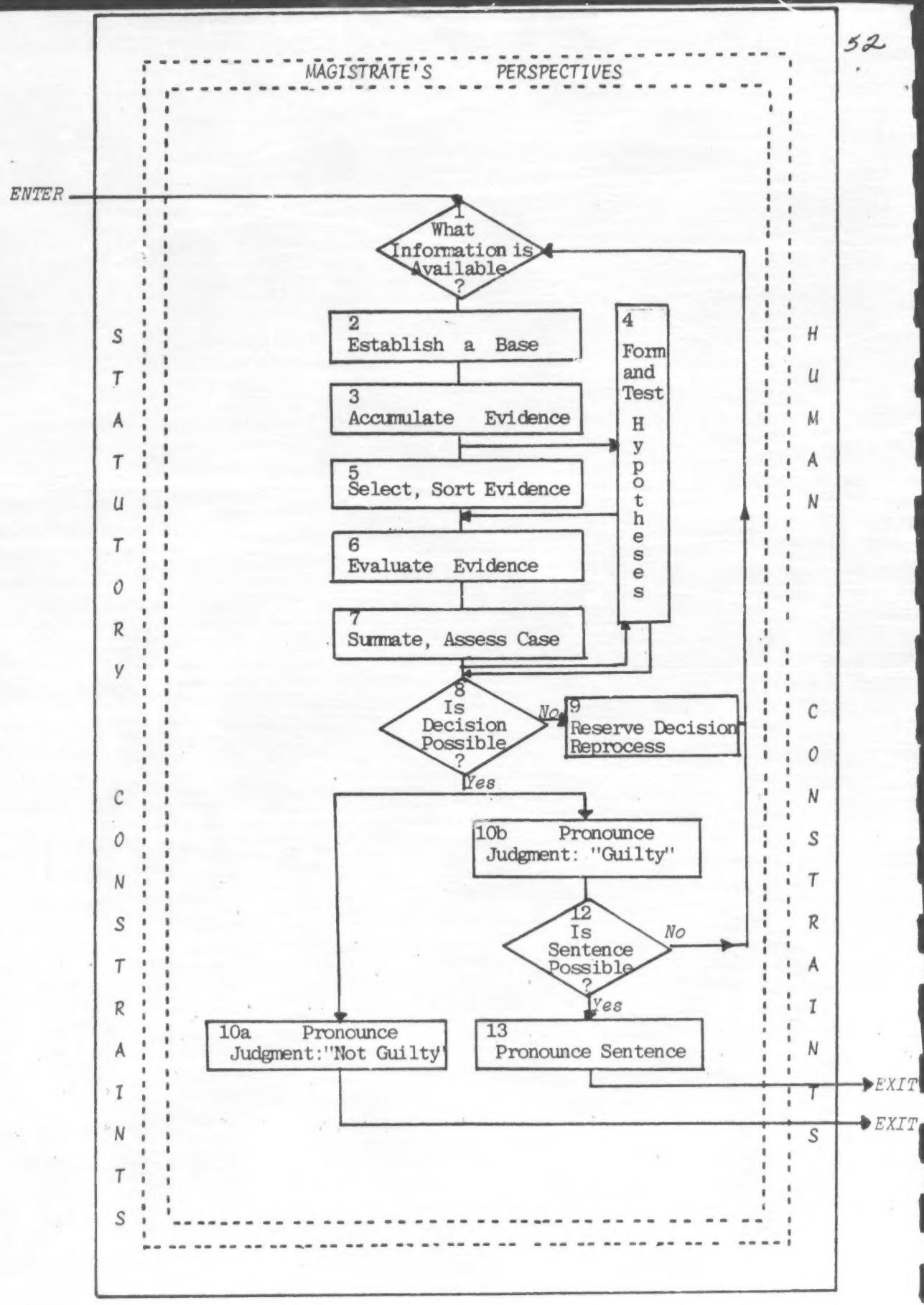

Figure 1: Magistrates' decision-making procedures of operating within framing factors of magistrates' perspectives and external constraints.